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Ms. Donna Searcy
Secretary
Federal Communications Commission
1919 M. Street NW, Room 222
Washington, D.C. 20554

Dear Ms. Searcy:

As chairman of the Region 37 National Public Safety Planning Advisory Committee, I am submitting for your consideration our committee's frequency plan for the State of South Carolina formulated in accordance with FCC Dockets 87-112 and 87-359.

On August 1, 1992, the Region 37 convenor issued a Public Notice that an initial Region 37 Public Safety Planning meeting would be held on October 7, 1992, at a state office building located at 300 Gervais Street, Columbia, South Carolina. In addition to this notice, an invitation was sent to all the Public Safety Agencies, Fire and EMS Departments in the State of South Carolina. Notices were also sent to State and Federal agencies in South Carolina. A total of 1,300 notices were sent. The initial regional planning meeting, attended by 82 interested parties, officially established the Region 37 Planning Committee with Boykin Roseborough elected as Chairman by the quorum. Participants in that meeting represented Public Safety Radio Services, Special Emergency Radio Service and Vendor Community. Please note that the vendors participation was encouraged, but they were not allowed to vote. As chairperson of the Region 37, I compiled all the inputs from the Regional Planning Committee Members and developed the final draft.

Sincerely yours,

Boykin M. Roseborough, Chairman Region 37
1026 Sumter Street
Columbia, South Carolina 29201
(803) 734-1002

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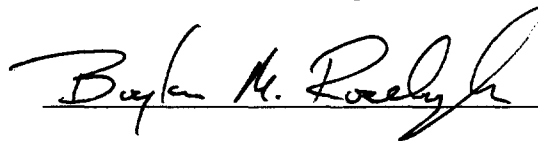
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

**NATIONAL PUBLIC SAFETY
AND
SPECIAL EMERGENCY
COMMUNICATIONS PLAN
FOR
* REGION 37 ***

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**THE STATE OF
SOUTH CAROLINA**

Submitted By:



**Boykin M. Roseborough
Chairman Region 37, SC
1026 Sumter Street
Columbia, SC 29201**

JANUARY 15, 1993

TABLE OF CONTENTS

1.0	<u>SCOPE</u>	<u>PAGE</u>
1.1	Introduction.....	4
1.2	Purpose.....	4
2.0	<u>AUTHORITY</u>	
2.1	Regional Planning Committee.....	4
2.2	Planning Committee Formation.....	5
2.3	National Interrelationships.....	5
2.4	Federal Interoperability.....	6
2.5	Regional Review Committee.....	6
3.0	<u>SPECTRUM UTILIZATION</u>	
3.1	Region Defined.....	7
3.2	Region Profile (Demographic Information).....	7
3.2.1	Population.....	7
3.2.2	Geographical Description.....	7
3.3	Usage Guidelines.....	7
3.4	Technical Design Requirements for Licensing.....	9
3.4.1	Definition of Coverage Area.....	9
3.4.2	System Coverage Limitations.....	9
3.4.3	Determination of Coverage.....	9
3.4.4	Annexation and Other Expansions.....	10
3.4.5	Coverage Area Description.....	10
3.4.6	Reassignment of Frequencies.....	11
3.4.7	Unused Spectrum.....	11
3.4.8	Adjacent Region Coordination.....	11
3.5	Initial Spectrum Allocation.....	12
3.5.1	Frequency Sorting Program.....	12
3.5.2	Methodology.....	12
3.5.3	Program Path.....	13
3.5.4	Future Changes and Additions.....	13
3.5.5	Adjacent Region Consideration.....	13
4.0	<u>COMMUNICATIONS REQUIREMENTS</u>	
4.1	Common Channel Implementation.....	14
4.1.1	Areas of Operation.....	14
4.1.2	Operation on the Common Channels.....	14
4.1.3	Operation Procedures.....	15
4.1.3(I)	International Calling Channel (ICALL).....	15
4.1.3(II)	International Tactical Channels (ITAC-1 through ITAC-4).....	15
4.1.4	Coded Squelch.....	15
4.2	Network Operating Method.....	16

4.3	Requirements for Trunking.....	16
4.4	Channel Loading Requirements.....	17
4.4.1	Loading Tables.....	18
4.4.2	Traffic Loading Study.....	18
4.4.3	Slew Growth.....	18
4.5	Use of Long Range Communications.....	18
4.6	Expansion of Existing Systems.....	19

5.0 IMPLEMENTATION AND PROCEDURES

5.1	Notification.....	19
5.2	Frequency Allocation Process.....	19
5.3	Frequency Allocation Maps.....	20
5.4	Expansion of Initial Allocation.....	20
5.5	Prioritisation of Applicants.....	20
5.6	Appeal Process.....	20

6.0 THE REGIONAL PLANNING COMMITTEE.....21

APPENDIX A.....	Initial Notice
APPENDIX B.....	Notification Letter
APPENDIX C.....	Planning Committee
APPENDIX D.....	S.C. Population
APPENDIX E.....	S.C. Planning Districts
APPENDIX F.....	S.C. Planning MAP
APPENDIX G.....	Final Notice
APPENDIX H.....	Adjacent Region Coordination
APPENDIX I.....	Channel Allocation Plan

1.0 SCOPE

1.1 Introduction

In December of 1983, the United States Congress directed the Federal Communications Commission (FCC) to establish a plan to ensure that the communications needs of state and local public safety authorities would be met. By their regular means of initiation, the FCC began the process of developing such a plan. Through their efforts, and the efforts of the National Public Safety Planning Advisory Committee (NPSPAC) the plan was begun.

The National Public Safety Planning Advisory Committee provided an opportunity for the public safety community and other interested members of the public to participate in an overall spectrum management approach by recommending policy guidelines, technical standards, and procedures to satisfy public safety needs for the foreseeable future. After consideration of NPSPAC's Final Report and comments filed in Docket No. 87-112, a Report and Order was released by the FCC in December 1987, which established a structure for the National Plan that consists of guidelines for the development of regional plans.

The National Plan provides guidelines for the development of regional plans. The particulars of this plan are found in FCC 87-359, which contains the required steps and contents for regional plan development. It is on this document that this plan is developed.

1.2 Purpose

Public safety communications has, for many years, been inadequate throughout the United States. This is as true for South Carolina as it is for any other state. Many, if not all, public safety radio users are constantly bombarded with outside interference, noise, and over crowding. It is with these problems in mind that this plan was developed.

This regional plan was developed with the objective of assuring all levels of public safety/public service agencies that radio communications in the near and distant future will not suffer from the problems of the past. The allocation of frequencies was done in as equitable a way as possible. The goal was to supply a pool of frequencies for each county and a pool for state agency use with adequate reserve allocations for future needs in all areas, and a method to appeal initial allocations based on need.

The National Plan, as developed by NPSPAC, was followed very closely in all considerations for frequency allocation, re-use, turn back, regional interoperability, spectrum requirements and adjacent region operations. This plan should provide the flexibility to accommodate the growth and changes which are bound to occur in public safety and public service communications operations long into the future.

2.0 AUTHORITY

2.1 Regional Planning Committee

The development of the Public-Safety Radio Communications Plan for Region 37, the State of South Carolina, has followed the requires of the FCC's

Report and Order as issued in the matter of General Docket 87-112.

In accordance with the FCC's Report and Order 87-112, the Associated Public-Safety Communications Officers Inc. (APCO) recommended to the Commission the appointment of a "Convenor" for Region 37. The Convenor served as the coordinator for the assembly and formation of the planning committee.

Participants in the formation of the Regional Planning Committee represent interested parties from both the Public Safety and Special Emergency Radio Services. A total of 54 individuals have participated in the development process. Appendix C herein contains the names, organizational affiliations, mailing addresses and phone numbers of all participants in the Regional Planning Committee.

The committee was selected by attendance at the planning meetings. Each member of the Committee representing an eligible licensee under the Public Safety Radio Services and the Special Emergency Radio Services was entitled to one vote in all Committee matters. Except as may be provided elsewhere in the Plan, the majority of those present at a scheduled meeting constituted a majority for all business. Only the final approval of the plan prior to submission to the FCC required a vote from more than would be in attendance at a regular meeting. In this case the vote was conducted by mail ballot sent to all those who had participated in the planning process. This way, the finished plan was reviewed and accepted by the widest, within reason, group of public safety/public service users.

2.2 Planning Committee Formation

The process of forming the Planning Committee was conducted in the following steps:

1. Letters of announcement were mailed to state agencies, local government, public safety agencies, local fire departments, local emergency medical services, federal agencies and vendors. Letters were also sent to all members of the South Carolina Chapter of APCO. A total of 1,300 notices were mailed.
2. A public notice was placed in a newspaper with state wide distribution, for the first planning committee meeting. This first meeting was held at the 300 Gervais Street, Columbia, South Carolina, a public facility. (See Appendix A).
3. Eighty-Six (86) interested parties attended the first organizational meeting.
4. The chairperson was elected at the first meeting.
5. Committee membership was left open to any person or agency which may not have been notified or decided to join the committee later. A total of 54 individuals participated in the planning process.
6. Vendors participation was encouraged, but vendors were not allowed a vote.

2.3 National Interrelationships

The Regional Plan is in conformity with the National Plan. If there is a conflict between the two plans, the National Plan will govern. It is expected that Regional Plans for other areas of the country may differ from this plan due to the broad differences in circumstance, geography, and population density. By officially sanctioning this plan the Federal Communications Commission agrees to its conformity to the National Plan. Nothing in the plan is to interfere with the proper functions and duties of the organizations appointed by the FCC for frequency coordination in the Private Land Mobile Radio Services, but rather it provides procedures that are the consensus of the Public Safety Radio Services and Special Emergency Radio Service user agencies in this Region. If there is a perceived conflict then the judgment of the FCC will prevail.

2.4 Federal Interoperability

Interoperability between the Federal, State and Local Governments during both daily and disaster operations will primarily take place on the five common channels identified in the National Plan. Additionally, through the use of S-160 or equivalent agreements, a licensee may permit Federal use of a non-Federal communications system. Such use, on other than the five identified common channels, is to be in full compliance with FCC requirements for government use of non-government frequencies (Title 47 CFR, sec 2.103). It is permissible for a non-Federal government licensee to increase channel requirements to account for 2-10 percent increase in mobile units, dependent on the amount of Federal Government Agencies involvement in its area, provided that written documentation from Federal agencies supports at least that number of increased units.

2.5 Regional Review Committee

Upon approval of this Plan by the Federal Communications Commission, a Region Review Committee will be established for the review of applications which do not fall within the stated guidelines provided for in this plan, or for the settlement of disputes concerning this plan and/or its application.

This committee shall consist of the Local APCO Frequency Advisor for this region, a state agency representative, one representative each from the Police, Fire and EMS services, and a minimum representation from other eligibles is also welcome. This committee and its composition will be assured by the South Carolina APCO chapter and other Public Safety organizations. Membership on this committee will be solicited on an annual basis. Since this committee will probably not have regular business, it will be up to the local APCO Frequency Advisor to notify the committee of problems, conflicts, or when it becomes apparent that spectrum demands will outpace available spectrum. Each member of the committee shall be furnished a copy of this plan upon their appointment or election to the committee.

Plan updates shall be accomplished by this committee. All changes or updates to the plan shall be first agreed upon by this committee and then submitted to the FCC for their review and consideration. When approved all changes shall be added to the plan with the appropriate documentation of approval.

This committee shall meet at least once annually to review the implementation of the plan. This review shall consist of examination of any and all license activity.

3.0 SPECTRUM UTILIZATION

This portion of the Plan provides a basis for proper spectrum utilization. Its purpose is to guide the Local APCO Frequency Advisor and/or the Regional Review Committee in their task of evaluating the implementation of this plan within this Region.

3.1 Region Defined

Region 37 is the State of South Carolina. This region is the result of definition by the Federal Communications Commission as a result of recommendations made in the National Public Safety Planning Advisory Committee (NPSPAC) plan as submitted and approved and contained in Docket 87-112. For purposes of this plan the State of South Carolina shall be defined as all the lands and waters contained within the boundaries of the State of South Carolina.

3.2 Region Profile (Demographic Information)

The purpose of this section is to provide the basis for the assignment of frequencies, and their re-use. Since the frequency allocation formula used is based on population within a county, it is necessary to provide this information within this plan. Below is the data used in the determination of frequency allocations.

3.2.1 State of South Carolina Population and Expected Growth Percentage. (See Exhibit D)

The population of South Carolina was 3,486,703 as of April 1, 1990. The population of the state is broken down between urban and rural residence. The urban population is some 54.1 percent and the rural 45.9 percent.

3.2.2 Geographical Description

There are 46 counties in the state with a total land area of 30,111 square miles and a total water area of 1,896 square miles. The largest county is Charleston, with a total of 1,357 square miles. Water areas of significance, include Lake Murray, Lake Marion, and Lake Moultrie.

As is shown above, the population of the state is 3,486,703 distributed across 30,111 square miles of widely varying terrain. This presents some problems in area coverage for radio systems in that the entire land area of any given jurisdiction must be covered. The population per square mile of 115.8 is somewhat sparse which generally indicates that the concentration of radio users for public safety activities is also sparse. All of these items were taken under consideration in the allocation plan.

3.3 Usage Guidelines

All systems operating within the Region having five or more channels will be required to be trunked. Those systems having four or less channels may be conventional or trunked.

The FCC, in its Report and Order states, "Exceptions will be permitted only when a substantial showing is made that alternative technology would be at least as efficient as trunking or that trunking would not meet operational requirements. Exceptions will not be granted routinely, however, and strong evidence showing why trunking is unacceptable must be presented in support of any request for exception."

Systems of four or less channels operating in the conventional mode who do not meet FCC loading standards will be required to share the frequency on a non-exclusive basis.

Public Safety communications at the state level, as it impacts the Region, will be reviewed by the Committee. State-wide public safety agencies will submit their communications plans for impact approval if they utilize communications systems within the Region and those portions of such systems must be compatible with the Regional Plan.

The next level of communication coverage will be a county/multiple municipality area. Those systems that are designed to provide area communication coverage must demonstrate their need to require such wide area coverage.

This would apply in a situation such as a city requesting coverage of an entire county. Communication coverage beyond the bounds of a jurisdictional area of concern cannot be tolerated unless it is critical to the protection of life and property. If the 800 MHz trunked radio technology is utilized, the system design must include as many county/multiple municipality government public safety and public service radio users as can be managed technically.

The county/multiple municipality agency(ies), depending upon systems loading and the need for multiple systems within an area, must provide intercommunications between area-wide systems. In a multi-agency environment, a lead agency using the 800 MHz spectrum, which is an agency or organization having primary response obligations in the geographic area, shall be responsible for coordinating the implementation the Common Channels in this band as mandated by the National Plan. Such implementation must be reviewed and approved by the local APCO Frequency Advisor, and at his/her discretion, the Regional Review Committee.

Municipal terminology often differs. In order to provide a title for the next level of communications the term "City" is used to define the level below county-wide. City communications for public safety and public services purposes must provide only the communications needed within its boundaries. However if the total number of radios in service does not reach minimum loading criteria for a trunked system, that City must consider utilizing the next higher system level if 800 MHz trunked radio is available in the area. As those higher level systems reach capacity, the smaller system communicators in public safety and public service must then consider uniting their communications efforts to formulate one large

system or forfeit use of the listed 800 MHz spectrum.

Where smaller conventional 800 MHz needs are required, those frequencies to be utilized must not interfere with the region's trunked systems. The 800 MHz trunked radio system is to be considered the higher technology at this time and in greater compliance with FCC guidelines. The amount of interference that can be tolerated depends on the service affected. Personal life and property protection shall receive the highest priority and disruptive interference with communications involved in these services in an area shall not be tolerated. Any co-channel interference within an authorized area of coverage will be examined on a case by case basis by the Regional Review Committee.

3.4 Technical Design Requirements for Licensing

3.4.1 Definition of Coverage Area Or Area Of Jurisdiction

The coverage area shall be that area for which a system is intended to cover with a received signal strength of greater than 40 dBu. This area shall normally represent the boundaries of the County or the incorporated municipality which is applying for license. In the case of regional or area-wide, multi-jurisdictional systems, the coverage shall be that area of all jurisdictions participating in the system combined.

3.4.2 System Coverage Limitations

System coverage shall be limited to the coverage area defined as listed above plus no more than five (5) additional miles in all directions extending from said boundaries of definition. This limitation shall assume maximum frequency reuse. The only exception to this rule shall be those applicants wishing to offer service or system use to areas outside of their jurisdictional boundaries. In these situations the applicant shall provide a proposal of said service to the local APCO Frequency Advisor, who may request Regional Review Committee consideration, for approval.

Systems not located within the geographical center of the jurisdiction(s) for which they cover shall utilize either directional antennas or antenna/tower relationship techniques to achieve the coverage required by this plan.

3.4.3 Determination Of Coverage

There are four variables used in determining the area of coverage of a proposed system. These variables are (1) the required strength of the received signal, (2) antenna height above average terrain (HAAT), (3) the effective radiated power (ERP) of the system, and (4) the type of equipment.

Antenna Height:

Shall be the height of the antenna above the average terrain surrounding the tower site.

Effective Radiated Power (ERP):

The ERP is the transmitter output power times the net gain of the antenna system. The actual formula is: $ERP (w) = Power(w) \times \text{Antilog}(\text{net gain in dB} / 10)$.

Environment Type:

OKUMURA/HATA METHOD - The Okumura method uses four different classifications to describe the average terrain around a transmitter site or area. The classifications are:

1-URBAN; Which is built-up city-crowded with large buildings or closely interspersed with houses and thickly-grown trees. This would include the downtown area of a major city.

2-SUBURBAN; Which is a city of highway scattered with trees, houses and buildings. This would include the downtown area of a large city.

3-QUASI-OPEN; Is an area between suburban and open areas. This includes areas outside of city limits that have few buildings and houses.

4-OPEN; Is an area where there are no obstacles such as tall trees or buildings in the propagation path or a plot of land which is cleared of anything for 300 to 400 meters ahead. This would include farm land, open fields, etc.

3.4.4 Annexations And Other Expansions

It is well known that as cities grown annexations occur. When an expansion of the present city limits of any city currently using an 800 megahertz system within the spectrum as herein specified occurs, it is understood that the existing system may have to be expanded and its range increased. This is a modification and may be permitted. The increased range of the system will have to be determined at the time of modification to assure non-interference with any other existing system. Where interference is likely, the use of alternate methods of expansion, such as satellite systems, may be necessary.

Should the annexation or expansion of a city effectively taken in all or most of a county, the allocation for that county may be given to the city if required by said city and not in use or planned to be used by the county. Where more spectrum is not available from the initial allocation, the rules for expansion of initial allocation, as contained in this plan, shall apply.

3.4.5 Coverage Area Description

All applicants shall provide with their applications a map showing the jurisdictional boundaries to be covered by the system, and the calculated system coverage. This map shall display the location of the system transmitter(s), including control stations. It is recommended that a U.S. Geological Survey (USGS) Quad topographical map be used for this purpose. If not available, a high quality locally produced map or a highway map may be substituted. Regardless of the type map used, the name of the applicant and the scale of the map shall be displayed on the map.

3.4.6 Reassignment of Frequencies

All agencies participating in the use of the new 800 megahertz spectrum shall prepare and submit a plan for the abandonment of their currently licensed frequencies in the lower bands. These released frequencies shall be available for reassignment to those agencies not migrating to 800 MHz at this time.

These released frequencies shall be returned to the radio service from which it was assigned. These frequencies shall then be available for reassignment by the assignment/coordination criteria in effect for that particular service by the regular FCC authorized coordinator for that service.

Frequencies which are to be abandoned by an agency shall not be handed down to another agency within the respective jurisdiction. Though this may seem a convenient method to re-use existing radio equipment, the reassignment must be handled through the normal process. It is recommended that any jurisdiction wishing to "hand down" frequencies to another agency submit the proper coordination and application forms with the document of release. This will put the applicant in a better posture for reassignment of the frequency in question. It should be noted that even though this procedure is followed, there is no guarantee that a particular frequency will be assigned to the returning jurisdiction.

The time frame allowed for phasing into 800 MHz and out of the lower currently licensed bands will be considered on a case by case basis by the review committee. Generally, one year will be

3.4.8 Adjacent Region Coordination

Coordination with adjacent regions shall be an on-going process until all region plans have been finalized. At present, all adjacent regions have been coordinated with and no conflicts have been identified. The adjacent regions with which coordination has been conducted are: North Carolina (Region 31), Georgia (Region 10) and Tennessee (Region 39).

SEE ATTACHED LETTERS - APPENDIX H

As the use of the five National channels is not considered a day-to-day function, the "hard" coordination for the use of these channels is not considered to be necessary or advisable. The use of these channels will always be on a non-interference basis, with on-the-air coordination at the time of use when required. Any user found to be operating in any manner other than this shall be considered to be operating improperly and subject to the existing Federal Communications Commission rules for willful interference with the communications of other users.

3.5 Initial Spectrum Allocation

3.5.1 Frequency Sorting Program

The APCO frequency packing programs are a series of programs that create an allocation table of frequencies usable within an area based on certain distance separation rules. These separation rules are an approximation of several engineering principles which dictate the necessary separation between co channel and adjacent channels stations in "real world" environments.

The methodology itself is not an engineering program but a planning tool to be used in the allotment of channels in accordance with the national NPSPAC plan and the 55 regional plans resulting from same.

Certain assumptions are made in the execution of the program. These are the probable 40/5dbu separation for co-channel allotments, the 40/20 dbu separation for adjacent channels and the fact that the 800 MHz environment is quite favorable for the use of transmitter combiners, antennas with specific highly directional patterns, and the use of simulcast for systems required to cover an area larger than (typical) 15 miles in a Base-to-Mobile configuration and 8 miles in radius in Base/Portable configuration.

Differences in terrain, anomalies in coverage, and other factors in the "real world" dictate accommodation in this or any other RF planning process. In the cast of NPSPAC planning regions this can be accommodated in advance of the packing process by indicating those sites and geo-political areas that have sites with exceptional coverage (due to height advantage or other anomaly). These sites are then placed in the data file with coverage radius's much larger than indicated above to reflect the actual environment.

Other anomalies found after the packing process is complete such as high signal level coverage within an urban area are accommodated

through design of a system intentionally protecting co and adjacent channel users (potential or planned).

3.5.2 Methodology

The method used in determining an allotment of a channel is to analyze both the co channel and adjacent channel distances relative to the project coverage areas for each site in a new system.

The decision to allot a channel to a geographic area is through a formula solution (D/R) three D must equal at least 5 times the larger radius (R) of coverage plus one times the smaller radius of coverage, the subject coverage specified is the 40 dbu coverage contour.

Co channel assignments must meet a D/R of 5.0 or greater in order to be considered allottable. Adjacent channel assignments must meet a 3.5 ratio for acceptability.

3.5.3 Program Path

The program process begins with the creation of a "circulation" file by the National APCO office. This file is created by the ATLAS GRAPHICS (TM) program. These files are then managed by a program to create a flat file containing anywhere from one to a hundred entries representing a geo-political area.

This data is then developed into separate files containing a "request" criteria of one of several circles (Lat/Long/Radius). A separate file is generated containing the name of each of the requestor files and the number of channels to be located for each area. Larger areas, consisting of more than one geo-political area, called a zone, are also created to reflect state government or regional government or authorities, usually a US Bureau of Census SMSA or an existing multi-county governmental region.

Each requester file is then compared against each record in a file creating a temporary file containing the results. This file is analyzed for records meeting the 5.0/3.5 spacing factors according to an assignment matrix. The requested number of channels meeting the criteria (if available) are then added to the file and the process begins again with the next requestor.

Results are generated throughout the process by noting the "success" level of each iteration on a printer and finally through printing a report for the particular region.

3.5.4 Future Changes and Additions to a Regional Plan Packing

The NSPAC planning process, like any good planning process, is subject to change as conditions within the region change. These changes, usually a need for additional channels within a planning area, can be accommodated through this packing software.

Any future amendment or revision of the regional channel assignment plan must be submitted through the APCO AFC office in order to assure compatibility with the other assignments within the region

and adjoining regions.

3.5.5 Adjacent Region Consideration

The computer program requires a listing of channels to be blocked along with the borderline with other regions which have pre-existing plans. If the adjacent region plan was developed using the APCO packing program, this information exists in the database. If the adjacent region plan was developed by another method, then the data must be obtained from the adjacent region's plan in order to building the exclusion list.

4.0 COMMUNICATIONS REQUIREMENTS

4.1 Common Channel Implementation

The implementation of the International Common Channels must follow the guidelines as set forth by the Federal Communications Commission by the approval of the National Plan. These five common channels are accessible by all levels of government and shall be used in accordance with the provisions of the National Plan. All mobile and portable radios shall be equipped to operate on the five international channels unless exempted by the Region Review Committee. All mobile and portable equipment must be equipped to operate in the "talk around mode" when required on the International Channels.

The International calling channel (821/866.0125 MHz) shall be implemented as a full mobile relay. Wide area coverage transmitters will be installed where applicable within a system. Large system users (5 channels or more) of 800 MHz shall be required to monitor this channel at all times. The area of coverage for this channel shall be equal to the area covered by the licensed system. This may or may not require the use of satellite receivers within the area to meet this requirement.

The four International Tactical (ITAC) Channels will be assigned State-wide, for use as needed by all eligible licensees. These channels are to be used in accordance with the National Plan and in compliance with the regulations as set forth by the Federal Communications Commission. These channels require no special licensing, only that the users be eligible for licensing on the other Public Safety 800 MHz channels as specified in section 90.616 (a) of the FCC Rules and Regulations.

4.1.1 Areas of Operation

The common channels shall be available for use throughout the Region. No specific assignments were deemed necessary within the Region.

4.1.2 Operation on The Common Channels

Normally, the five interoperable channels are to be used only for activities requiring intercommunications between agencies not sharing any other compatible communications system. Interoperable channels are not to be used by any level agency for routine, daily operations. In major emergency situations, one or more ITAC channels may be assigned by the primary Public Safety Agency within that area of operation. The primary Public Safety agency in each

county, if not defined elsewhere in the plan, shall be the County Sheriff's Department or Public Safety Department or the lead agency, which may be any agency licensed to operate in this spectrum, or "on-scene" commander. The primary Public Safety agency shall be the city level Public Safety Department in situations which occur within the corporate limits of said city. These primary agencies will assign one or more of the ITAC channels for use according to need during each special situation requiring the use of these channels.

Participants in the interoperable channels include Federal, State, and Local Disaster Management agencies. Police, Fire, and providers of Basic and Advanced Life support services will be the primary using agencies. If radio channels are available, other services provided in the Public Safety Radio Services and the Special Emergency Radio Services may also participate to the extent required to insure the safety of the public. These agencies include the Highway Department, Motor Vehicle Comptroller, Forestry, Wildlife and other special service agencies not normally involved in day-to-day public safety operations.

4.1.3 Operation Procedures

On all Common Channels, plan English will be used at all times, and the use of unfamiliar terms, phrases, or codes will not be allowed.

4.1.3(I) International Calling Channel (ICALL):

The ICALL channel shall be used to establish contact with other users in a particular Region that can render assistance at an incident. This channel shall not be utilized as an ongoing working channel. Once contact has been established between agencies, an agreed upon ITAC or mutual aid channel shall be used for continued communications.

4.1.3(II) International Tactical Channels (ITAC-1 - ITAC-4):

These frequencies are reserved for use by those agencies involved in inter-agency communications. Incidents requiring multi-agency participation will utilize these frequencies as directed by the control agency assuming responsibility for an incident or area of concern. These frequencies may be subdivided according to function in an incident or by geographical location in response to an incident. It is recommended that the following assignments for ITAC-1 through ITAC-4 be used when possible.

ITAC-1.....Law Enforcement

ITAC-2.....Fire Services

ITAC-3.....Emergency Medical Services

ITAC-4.....Command and Control

4.1.4 Coded Squelch

All equipment capable of operating of the five (5) common channels

shall be equipped with the National Common Tone Squelch of 156.7 Hz. Mobile relays on these channels, if authorized, may use additional tone or digital squelch codes for the purpose of selecting individual mobile relay stations, provided the National Common Tone Squelch Code is used on the output. If such an arrangement is utilized, provision must also be made for certain centralized, high level sites to be activated by the 156.7 tone to ensure emergency access by transient units.

4.2 Network Operating Methods

Communications systems on ITAC-1 through ITAC-4 will be implemented by agencies who volunteer on a distributed coordinated basis. Every primary geographic section of the Region is intended to be covered by at least one of the ITAC channels. In many areas the common channels will be utilized on a mobile to mobile talk-around basis. Mobile relays on ITAC-1 through ITAC-4 will be on a limited coverage design to permit reuse of the channel several times within the Region and in adjacent regions. Since Region 37 will probably not have a large number of stationary ITAC Channel stations, the implementation of mobile relay or repeaters is strongly encouraged. This will fill an "on-scene" requirement for most multi-agency response situations. Adjacent region coordination will be via existing mutual aid coordination procedures with the requesting region establishing the tactical frequency assignment.

4.3 Requirements for Trunking

All systems operating in the Region having five or more channels will be required to be trunked. Those systems having four or less channels may be conventional. It is strongly suggested that any entity licensing three or more repeaters use trunking.

The FCC in its Report and Order states: "Exceptions will be permitted only when a substantial showing is made that alternative technology would be at least as efficient as trunking or that trunking would not meet operational requirements. Exceptions will not be granted routinely. Strong showings as to why trunking is unacceptable must be presented in support of any request for exception."

Systems that do not meet FCC loading standards can be required to share such frequencies on a non-exclusive basis. Those agencies requesting Data channels only can be required to share channels with adjacent agencies wherever feasible or limit coverage to their geographic area. Exceptions will be considered on a case-by-case basis by the Regional Review Committee.

Depending on systems loading and the need for multiple systems within an area, operations of wide area systems (including, but not limited to, designated "Monitoring Agencies") must provide for coordination between area-wide systems and "Monitoring Agencies". Single municipalities or agencies must restrict design and implementation of their systems(s) to provide only the communications needed within its geopolitical boundaries. The use of trunked systems is encouraged. However, if the total number of radios in services does not reach minimum loading criteria for a trunked system, that user must consider utilizing the next higher system level if 800 MHz trunked radio is available in the area. As systems reach capacity, the smaller system users must consider consolidating their

communications systems to formulate one large trunked system.

A requesting applicant for radio communications in the 800 MHz public safety services in the Region will be required to conform to the FCC loading criteria for its proposed system. The provisions of this regional plan must be used as a guide for establishing any new systems. Strict adherence for limiting their area of coverage to the boundaries of the applicant agency's jurisdiction must be observed. Overlap or extended coverage must be minimized, even where systems utilizing 800 MHz trunked radio systems are proposing to intermix systems for cooperative and/or mutual aid purposes.

Antenna heights are to be limited to provide only the necessary coverage for a system. When antenna locations are restricted to only the "high-ground", transmitter outputs and special antenna patterns must be employed to produce only the necessary coverage with the proper amount of ERP. All necessary precautions are to be taken to gain maximum reuse of the limited 800 MHz spectrum.

4.4 Channel Loading Requirements

An agency/jurisdiction requesting a single frequency to replace a frequency currently in use that will be turned back for reassignment will not be required to meet loading requirements in order to obtain the new

4.4.1 Loading Tables

<u>EMERGENCY</u>		<u>NON-EMERGENCY</u>	
CHANNELS	UNITS/CHANNEL	CHANNELS	UNITS/CHANNELS
1 - 5	70	1 - 5	80
6 - 10	75	6 - 10	90
11 - 15	80	11 - 15	105
16 - 20	85	16 - 20	120

Agencies requesting additional frequencies must show loading of 100 percent or greater on their existing system. Should a demand for frequencies exist after assignable frequencies become exhausted, any system having frequencies assigned under this plan four or more years previously and not loaded to at least 70 percent will lose operating authority on a sufficient number of frequencies to bring the system into compliance with the 70 percent loading standard. Frequencies lost in this manner will be reallocated to other agencies to help satisfy the demand for additional frequencies.

4.4.2 Traffic Loading Study

Justification for adding frequencies, or retaining existing frequencies, can be provided by a traffic loading study in lieu of loading by number of transmitters per channel. It will be the responsibility of the requesting agency to provide a verifiable study showing sufficient airtime usage to merit additional frequencies. A showing of airtime usage, excluding telephone interconnect airtime, during the peak busy hour greater than 70 percent per channel on three consecutive days will be required to satisfy loading criteria.

4.4.3 Slow Growth

All systems in the 821-824/866-869 MHz bands under this plan will be slow growth in accordance with Section 90.629 of the Commission's Rules.

4.5 Use of Long Range Communications

During incidents of major proportions, where Public Safety requirements might include the need for long-range communications in and out of a

assistance. Instances as addressed in the National Public Safety Planning Advisory Committee's Plan, such as earthquakes, hurricanes, floods, widespread forest fires, or nuclear reactor problems could be a cause for such long-range communications needs.

4.6 Expansion of Existing Systems

Existing systems that are to be expanded to include the frequency bands of 821-824/866-869 MHz will have the mobile radios "grandfathered", provided that they are modified in conformance with the Memorandum Opinion and Order, FCC Docket 87-112. Primarily this involves reducing the modulation to ± 4 KHz. Existing base stations in the frequency bands 806-821/851-866 MHz may not be used in the frequency bands 821-824/866-869 MHz.

5.0 IMPLEMENTATION AND PROCEDURES

reserved 78 channels for regional services. This leaves a reserve pool of channels for future assignment.

5.3 Frequency Allocation Plan

In Appendix I is the data, or packing plan generated by APCO via the computerized packing program. The first section is county by county information provided, followed by the packing plan. The plan took adjacent regions into consideration, in addition, letters of concurrence were sent.

5.4 Expansion of Initial Allocation

In the event that the allocation for any county becomes depleted, the Region Review Committee shall meet to make further allocations to said county. Should this occur, the applying agency or entity shall submit the proper license and coordination applications with all applicable fees, as in any other licensing request. Allocations will be made based on the initial frequency allocation plan as mentioned above, taking into consideration the channels which were returned to the reserve pool.

5.5 Prioritization of Applicants

A very simple method of prioritization has been chosen for use in this Region. As there is no unmet spectrum requirement, there appears to be no great need for prioritization. In order to facilitate future problems which may arise, the following rating system shall be used.

Prioritization shall be done according to a final score, based on applicant criteria. The highest score, in points, shall be given priority in a situation where spectrum is insufficient to fulfill the needs of all.

Public Safety Agencies.....2 Points

Public Service Agencies.....1 Point

Multi-agency Systems.....2 Points

Multi-agency/Multi Jurisdiction Systems.....3 Points

Single Agency/Jurisdiction Systems.....1 Point


5.6 Appeal Process

At any time, any applicant may appeal an allocation, rejection, or any limits placed on a particular application for any reason. The appeal process has two levels; the Region Review Committee, and the FCC. An applicant who decides to appeal a rejection should initiate that appeal immediately upon notification of rejection. In the event that an appeal reaches the FCC, their decision will be final and binding upon all parties.

6.0 THE REGION PLANNING COMMITTEE

CHAIRPERSON:

NAME: Boykin M. Roseborough
AGENCY AFFILIATION: State Budget & Control Board
ADDRESS: Division of Information Resource Management
1026 Sumter Street
Columbia, South Carolina 29201
PHONE NUMBER: (803) 734-1002



THE REGIONAL PLANNING COMMITTEE -- SEE APPENDIX C

THE STATE-RECORD CO., INC.
Columbia, South Carolina
publisher of

The State

**STATE OF SOUTH CAROLINA
COUNTY OF RICHLAND**

Personally appeared before me Mort Goldstrom, Classified Advertiser

of THE STATE, and makes oath that the advertisement,

Public Notice - Announcement of the Initial Region 37 Public Safety
and Special Emergency Planning Meeting - October 7, 1992 at 1:30PM

was inserted in THE STATE, a daily newspaper of general circulation published in the

City of Columbia, State and County aforesaid, in the issues of

August 1, 2, 3, 1992

Mort Goldstrom

Subscribed and sworn to before me

this 3rd day of August 19 92

Charles Henry

Notary Public

"Errors - the liability of the publisher on account of errors in or omissions from any advertisement will in no way exceed the amount of the charge for the space occupied by the item in error, and then only for the first incorrect insertion."

PUBLIC NOTICE

ANNOUNCEMENT OF THE INITIAL REGION 37 PUBLIC SAFETY AND SPECIAL EMERGENCY PLANNING MEETING

The purpose of this Public Notice is to announce the initial meeting of Region 37 Public Safety and Special Emergency Planning Committee. Region 37 encompasses all counties within the state of South Carolina.

DATE/TIME: October 7, 1992 at 1:30 P.M.

LOCATION: Conference Room 1
300 Gervais Street, Columbia, S.C.

CONVENOR: Boykin M. Roseborough
1026 Sumter Street
Columbia, SC 29201
803-734-1002

All parties located within the boundaries of Region 37 and interested in participating in the planning process are encouraged to contact the Convenor listed above. This notice in accordance with the Federal Communications Commission Report and Order in the matter of Docket 87-112.

8066

STATE OF SOUTH CAROLINA
State Budget and Control Board
 DIVISION OF INFORMATION RESOURCE MANAGEMENT



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 GOVERNOR

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 COLUMBIA, SOUTH CAROLINA 29201
 (803) 737-0077

TED L. LIGHTLE
 DIVISION DIRECTOR

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 CHAIRMAN, SENATE FINANCE COMMITTEE

WILLIAM D. BOAN
 CHAIRMAN, WAYS AND MEANS COMMITTEE

LUTHER F. CARTER
 EXECUTIVE DIRECTOR

**ANNOUNCEMENT OF THE INITIAL
 REGION 37 PUBLIC SAFETY/SPECIAL EMERGENCY
 RADIO SERVICES PLANNING MEETING**

Having been duly certified to the Federal Communications Commission (FCC) by the Associated Public-Safety Communications Officers, Inc. (APCO) as the Convenor of an initial meeting of representatives of parties eligible for radio licensing in the FCC's Public Safety and Special Emergency Radio Services to establish a Regional Planning Committee in the State of South Carolina, Region 37, as described hereinafter, I hereby give Public Notice that such an initial meeting will be held on October 7, 1992 at 300 Gervais Street, Columbia, SC beginning at 1:30 p.m. This Region is one of 55 established by the FCC, throughout the United States and encompasses all counties within South Carolina.

The responsibility of the Regional Planning Committee will be to develop a plan for use of frequencies in the 821-824 and 866-869 megahertz bands allocated by the FCC for use by such licensees. Parties interested in participating in the regional planning process should contact me.

This Public Notice is in accordance with the FCC's Report and Order in Gen. Docket No. 87-112, adopted by the FCC on November 24, 1987 and released on December 18, 1987.

The Report and Order was based in large part on the Final Report of the National Public Safety Planning Advisory Committee, which was submitted to the FCC on September 9, 1987.

Copies of both the Report and Order and the Final Report are available from the FCC's duplication contractor, Downtown Copy Center, Suite 640, 1900 M Street, N.W., Washington, D.C. 20036, Phone (202) 452-1422

Boykin Roseborough, Convenor
 Region 37, National Plan
 Budget & Control Board/DIRM
 1026 Sumter Street
 Columbia, SC 29201
 803/734-1002

Boykin Roseborough
 Convenor
Aug 3, 1992
 Date



PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
1919 M STREET N.W.
WASHINGTON, D.C. 20554

24520

News media information 202/632-5050. Recorded listing of releases and texts 202/632-0002.

August 24, 1992

**ANNOUNCEMENT OF THE INITIAL
REGIONAL PUBLIC SAFETY PLANNING MEETING FOR
SOUTH CAROLINA**

The purpose of this Public Notice is to announce the initial meeting of the South Carolina Public Safety Regional Planning Committee.

DATE/TIME: October 7, 1992/1:30 PM

LOCATION: 300 Gervais Street
Columbia, South Carolina

CONVENOR: Boykin Roseborough
Budget & Control Board/DIRM
1026 Sumter Street
Columbia, SC 29201

(803) 734-1002

All parties located in South Carolina (Region 37) who are interested in participating in the public safety planning process are encouraged to contact the convenor listed above for further information.